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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/685,313	10/10/2000	Brandon Mitchell Burrell	42626/204668	4354

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EXAMINER

SMITH, PETER J

ART UNIT	PAPER NUMBER
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2176

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DATE MAILED: 07/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/685,313

Applicant(s)

BURRELL, BRANDON MITCHELL

Examiner

Peter J Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: application filed on 10/10/2000.
2. Claims 1-39 are pending in the case. Claims 1, 14 and 27 are independent claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merkin, US 5,812,390 patented 9/22/1998 in view of Kuntz et al. (hereafter referred to as Kuntz), US 6,498,657 B1 filed 3/17/1999.**

Regarding independent claim 1, Merkin teaches a string data area stored in a range of memory addresses in a computer-readable medium, wherein the string data area includes a plurality of data strings to be displayed by a display management module in fig. 2 and 4, col. 6 lines 32-65 and col. 7 lines 26-35. Merkin does not specifically teach what the characters of each data string are composed of and does not teach using escape codes to identify double byte characters from ASCII characters. Kuntz teaches identifying single byte characters among double byte characters using escape codes in col. 8 line 31 – col. 9 line 2. It would have been obvious to one of ordinary skill in the art at the time of the invention to have used the teachings of Kuntz to have identified double byte characters encoded among a stream of single byte characters using escape codes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teaching of Merkin and Kuntz to have created the claimed invention. It would have been obvious and desirable to have used ASCII characters in the data string because of its standardization and it would have been obvious to have encoded double byte characters using escape codes to have accommodated foreign languages requiring more than 256 unique characters. Merkin provides motivation for accommodating a plurality of foreign languages in a BIOS in col. 2 lines 17-36.

Regarding independent claim 14, Merkin teaches creating a string data area in a range of memory addresses in the computer-readable medium for storing each of the data strings in fig. 2 and 4, col. 6 lines 32-65 and col. 7 lines 26-35. Merkin does not specifically teach what the characters of each data string are composed of and does not teach using escape codes to identify double byte characters from ASCII characters. Kuntz teaches identifying single byte characters among double byte characters using escape codes in col. 8 line 31 – col. 9 line 2. It would have been obvious to one of ordinary skill in the art at the time of the invention to have used the teachings of Kuntz to have identified double byte characters encoded among a stream of single byte characters using escape codes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teaching of Merkin and Kuntz to have created the claimed invention. It would have been obvious and desirable to have used ASCII characters in the data string because of its standardization and it would have been obvious to have encoded double byte characters using escape codes to have accommodated foreign languages requiring more than 256

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unique characters. Merkin provides motivation for accommodating a plurality of foreign languages in a BIOS in col. 2 lines 17-36.

Regarding independent claim 27, Merkin teaches creating a string data area in a range of memory addresses in the computer-readable medium for storing each of the data strings in fig. 2 and 4, col. 6 lines 32-65 and col. 7 lines 26-35. Merkin does not specifically teach what the characters of each data string are composed of and does not teach using escape codes to identify double byte characters from ASCII characters. Kuntz teaches identifying single byte characters among double byte characters using escape codes in col. 8 line 31 – col. 9 line 2. It would have been obvious to one of ordinary skill in the art at the time of the invention to have used the teachings of Kuntz to have identified double byte characters encoded among a stream of single byte characters using escape codes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teaching of Merkin and Kuntz to have created the claimed invention. It would have been obvious and desirable to have used ASCII characters in the data string because of its standardization and it would have been obvious to have encoded double byte characters using escape codes to have accommodated foreign languages requiring more than 256 unique characters. Merkin provides motivation for accommodating a plurality of foreign languages in a BIOS in col. 2 lines 17-36.

Regarding dependent claims 2, 15, and 28, Merkin does not specifically teach a font module for displaying 256 standard and extended ASCII characters. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a font module

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to have displayed 256 standard and extended ASCII characters so that they would have been appropriately rendered on the display screen.

Regarding dependent claim 3, 16, and 29, Merkin does not specifically teach an extended ASCII font data area stored in a range of memory addresses in a computer-readable medium for storing font data related to extended ASCII characters that are not displayable with the extended ASCII character data stored in a font module. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have stored data related to extended ASCII characters which were not displayable so that the characters could have been handled appropriately.

Regarding dependent claim 4, 17, and 30, Merkin does not specifically teach a double byte character font data area stored in a range of memory addresses in a computer-readable medium for storing font data related to double byte characters. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have to have stored font data relating to double byte characters so that the characters could have been displayed correctly.

Regarding dependent claim 5, 18, and 31, Merkin does not specifically teach a double byte character font data area which includes only font data for the double byte characters present in the data strings to be displayed by the display management module to thereby minimize data storage space. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have only included font data relevant to the data strings to have minimized storage space since the original motivation for separating the strings from the code was to have minimized storage space.

Regarding dependent claim 6, 19, and 32, Merkin does not specifically teach double byte characters which are sequentially encoded with 16 bit values and the code values representing the double byte characters are stored in a string data area and wherein the font data associated with the double byte characters is stored in the double byte character font data area. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have encoded the double bytes with 16 bit values since the double byte characters are composed of 16 bits. It would have been obvious to one of ordinary skill in the art at the time of the invention to have logically maintained the font data associated with the double byte characters in the double byte character font data area.

Regarding dependent claim 7, 20, and 33, Merkin does not teach wherein ASCII codes at least as great as a selected escape code are encoded in a string data area as 16 bit codes, wherein each 16 bit code comprises an escape code proceeded by the ASCII code of the standard ASCII and extended ASCII character. Kuntz teaches using an escape code to encode single byte characters within double byte characters in col. 8 line 31 – col. 9 line 2. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the teaching of Kuntz to have modified Merkin to have used an escape code to have encoded 16 bit codes within single byte ASCII codes. This would have allowed the invention to have accommodated languages requiring more than 256 symbols. Merkin provides motivation for accommodating a plurality of foreign languages in a BIOS in col. 2 lines 17-36.

Regarding dependent claim 8, 21, and 34, Merkin does not teach wherein the double byte characters are sequentially encoded into 16 bit codes, wherein the first double byte character is represented by a 16 bit code having a first byte that is one value greater than the escape code

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and a second byte equal to zero and the remaining unique double byte characters are encoded with sequential 16 bit code values. Kuntz teaches using an escape code to encode single byte characters within double byte characters in col. 8 line 31 – col. 9 line 2. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the teaching of Kuntz to have modified Merkin to have used an escape code to have encoded 16 bit codes within single byte ASCII codes. This would have allowed the invention to have accommodated languages requiring more than 256 symbols. Merkin provides motivation for accommodating a plurality of foreign languages in a BIOS in col. 2 lines 17-36.

Regarding dependent claim 9, 22, and 35, Merkin does not teach wherein the selected escape code is E0 hexadecimal, wherein the double byte characters are sequentially encoded and stored in a string data area such that the first double byte character is represented by the 16 bit code value E100 in hexadecimal and the remaining unique double byte characters are encoded with sequential 16 bit values from E101 to FFFF hexadecimal, and wherein the extended ASCII characters having ASCII codes at least as great as the selected escape code are encoded in the string data as 16 bit codes with the selected escape code as the first byte and the ASCII code for the extended ASCII character as the second byte. Kuntz teaches using an escape code to encode single byte characters within double byte characters in col. 8 line 31 – col. 9 line 2. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the teaching of Kuntz to have modified Merkin to have used an escape code to have encoded 16 bit codes within single byte ASCII codes. This would have allowed the invention to have accommodated languages requiring more than 256 symbols. Merkin provides motivation for accommodating a plurality of foreign languages in a BIOS in col. 2 lines 17-36.

Regarding dependent claim 10, 23, and 36, Merkin teaches storing strings in a plurality of particular languages in col. 2 lines 17-36 and col. 6 lines 25-31. Merkin does not teach a header associated with the data string area that is stored in a range of memory addresses, wherein the header indicates the language with which the data strings are stored in the string data area. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a header to have identified the particular language contained in the data string area with a header so that a programmer maintaining the BIOS would have known what the particular language was.

Regarding dependent claim 11, 24, and 37, Merkin does not teach a header having data stored therein indicating whether the data structure further includes an extended ASCII font data area stored in a range of memory addresses in a computer-readable medium for storing font data related to extended ASCII characters are not displayable with the extended ASCII character font data stored in the font module. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a header in the data structure to have indicated which characters were not displayable with the extended ASCII character font data stored in the font module.

Regarding dependent claim 12, 25, and 38, Merkin does not teach a header indicating whether the data structure comprises a double byte character font data area stored in a range of memory addresses in the computer-readable medium for storing font data related to characters that are double byte characters. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a header to have indicated whether the data

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structure comprised double byte characters so that the characters could have been handled appropriately.

Regarding dependent claim 13, 26, and 39, Merkin teaches wherein the data structure further comprises a strong pointer table stored in a range of memory addresses including pointers indicating the location of data strings in the string data area in fig. 2 and 4, col. 6 lines 32-65 and col. 7 lines 26-35.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Stone et al., US 5,903,859 filed 3/27/1996 and Stone et al., US 6,092,037 division filed 3/27/1996 disclose a dynamic multi-lingual software translation system which improves upon a system using predefined message reference tokens. Gentile et al., US 6,052,800 filed 3/6/1998 discloses a system utilizing tokens corresponding to messages. Hymel, US 5,426,426 patented 6/20/1995 discloses a communications system using tokens to transmit a set of most frequently used phrases uniquely associated with each of the tokens. Arnold et al., US 4,949,302 patented 8/14/1990 discloses a message token string table containing a token string including several tokens. The tokens each have a value that represents the location of its corresponding word. Phillips et al., US 6,332,062 B1 filed 1/10/2000 discloses a system for customizing user messages in a printing system. User messages are identified by message pointers. Stromberg, US 5,689,671 patented 11/18/1997 discloses the use of transmitting identifiers which uniquely point to messages to reduce the quantity of data transmitted to a user unit by transmitting only the identifier which points to pre-stored information on the user unit. Harmer, US 5,835,760

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patented 11/10/1998 discloses a motivation for reducing the size of a computer BIOS. Hall et al., US 6,047,373 filed 9/30/1997 discloses a motivation for reducing the size of a computer BIOS.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Smith whose telephone number is 703-305-5931. The examiner can normally be reached on Mondays-Fridays 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H Feild can be reached on 703-305-9792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PJS
June 14, 2004


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER